As photographers we're always looking for perfect light.
And yet, the quality of available light isn't always ideal.
It is rarely perfect. But I feel that in using flash wisely, I'm able to enhance or over-ride the available light.

作为摄影者总是追求完美的光线，但是现场可用光的质量却并非总是尽如人意。可以说光线完美的情况是少之又少。但是合理的利用闪光灯你就能够加强甚至覆盖现场的可用光。

With careful use of flash, I am more in control of light, and hence the way my photos will look - than if I had just accepted the existing ambient light.

合理的使用闪光灯你就会对光线的控制更加自如，使你的照片比不用闪光灯时更加耐看。

Instead of waiting for perfect light, I use what I have ...
and add flash to make the best of the situation.

因此，与其等待好光线出现不如利用你现有的东西---用闪光灯创造出最后的拍摄条件。

A few things we need to get out of the way first :

事先要交待几点：

- These pages were originally written to help other photographers who struggle with on-camera flash. But it was also written as a reaction against the snobbery of the purists who insist on using available light only - even when it looks terrible.

这篇文章是写给那些使用外闪的人看的，当然也是写给即使现场光很差也不肯用闪灯的顽固派看的。

- the photos on the next few pages are all from weddings.
However, don't feel that this only relates to weddings. The techniques here are just as applicable for most fields of photography. It just happens that most of my photography work are weddings, and it was easier for me to find examples from my work.

VISIT…

本文中的图片都是在婚礼上拍摄的，但这并不意味着这些技术只在婚礼上有用，这些技术可以应用到大多数的摄影领域。只是我的工作就是婚礼摄影，所以找婚礼相关的样片对我来说更容易。

- I own and use both Nikon and Canon systems. I have used, or am currently still using the Nikon D2x, D2H, D100, Canon 1Dmk2, 1Dmk2N, and Fuji S2. So the techniques here are, for the most part, system non-specific.

我同时拥有 nikon 和 canon 的器材，我曾经使用过的和现在仍在使用的器材有 Nikon D2x, D2H, D100, Canon 1Dmk2, 1Dmk2N, 和 Fuji S2。所以此处讨论的技术与所使用的器材系统无关。

- the photos here were all taken with digital cameras. They are immensely helpful tools in learning about the craft of photography. However, the techniques here are just as valid for film cameras.

所有的照片都是用数码相机拍摄。数码相机是学习摄影的利器。当然本文所讲的技术同样适用于胶片摄影。

Also, the images here had very little to no Photoshop work done to them. But I did correct the white balance, and fine-tune exposure and contrast for these photos, as part of my general raw workflow.

这里的图片都没怎么后期处理，只是像我在raw 工作流程里讲的那样，矫正了白平衡并微调了一下曝光和对比度。

- I always use my camera in **manual exposure mode** for very specific reasons. With flash however, I alternate between TTL flash (if either myself or the subject isn't static), or manual flash, (if the subject is static in relation to the strobe.) More on this here.

我的相机总是设在手动档。闪光灯的设置则根据情况会有所不同，当拍摄移动物体，或者我自己在移动过程中拍摄时，会将闪光灯设为TTL模式，当拍摄目标为静止时会将闪光灯设为手动模式。更多请参见这里.

- And finally, when I talk about 'on-camera flash', I am **not** talking about the pop-up flash, but a proper dedicated hot-shoe mounted flash.

最后本文是讲外闪相关技术的而不是内闪的。

making flash not look like flash:

隐藏起闪光灯的痕迹：

I'm a heavy user of flash - most of my photos have flash one way or another. But I try and hide that fact. I nearly always have an on-camera flash, but I try to diffuse it or bounce it wherever possible. I use as little direct flash as I can, except outdoors where I try and use available light, and use flash only to lift the shadows and reduce the contrast. However, sometimes it is just best to overpower the ambient light with flash - but still try to make it look natural, ie, not like flash.

我大多数的照片都使用了闪光灯，但我会努力的去隐藏那些使用闪灯的痕迹。多数情况下我会使用反光板或者把闪灯打向别的物体，我一般尽量避免将闪灯直接打到被摄目标上。只有一种例外，那就是在室外摄影时用闪灯来补光减小对比度时可以将闪灯直接打到被摄目标上。总之，多数情况下闪灯的光应该压过环境光，但要尽量使之看起来更自然，即看起来不像是用闪灯拍的。

Let's start off with these few photos. They were all done using flash on camera. You'll note that there is **no discernable flash shadow**. I absolutely loathe a distinct flash shadow. So that's the ideal that I always strive for - that it shouldn't be obvious that I didn't just use existing light. It isn't always possible, but that is what I try for in every photograph.

先来看几幅照片，它们都是用闪灯拍摄的，但你却看不到闪灯留下的阴影。我个人非常讨厌闪光灯留下的阴影，所以我的理念就是就是让所有的照片看起来都好像只用到了环境光，当然有时候这不太可能，但我会去尽力达到这个目标。

This was shot at f2, with flash bounced directly behind me into the open room to just help lift the shadows. Note, there is NO flash shadow.

上图，光圈为 2，闪光灯直接打到我身后打开的房间中，这样可以提升阴影的亮度，并且你根本注意不到闪光灯留下的痕迹。

I purposely didn't use a diffuser dome / Stofen omnibounce here, since it would've thrown too much flash directly forward. I needed all the flash to be indirect.
在这里，我没用闪光灯反光板或柔光罩的原因是那样的光线就太强了，我所需要的只是将闪光灯的光给反射回来。

specific settings:

具体参数如下：
Nikon D2H
Nikon 85mm f1.4
1/125th @ f2 @ 400 iso

manual; matrix metering
TTL flash: -1.7 exp comp

My choice of settings here were dictated by the available light, and I just used a hint of flash by bouncing it into the huge room behind me. At f2, and as fill, I didn't need to blast a ton of light from my strobe.

上面的这些参数其实是由现场光决定的，我所做的只是让闪光灯打向我身后的大房间，因为光圈已经为 f2 了因此，我并不需要太多的光。

Flash bounced over my left shoulder. Note that there is NO direct flash, and hence no flash shadow.

闪光灯打向我的左肩，因为没有直接打向新娘，因此也没有闪灯留下的阴影。

specific settings:

具体参数如下：
Nikon D2H

Nikon 28-70mm f2.8
1/250th @ f4 @ 400 iso
manual; matrix metering
TTL flash: +1 exp comp

The high shutter speed was a specific choice so that the stained-glass window wouldn't be blown out, but instead retain the colours.
The bride was entirely lit by bounced flash, so by controlling my shutter speed (for my chosen aperture and iso), I could match the exposure for the window.

我有意采用了较高的快门速度，这样能保证彩色玻璃窗不会过曝并且还能保留其原来的色彩。新娘则主要靠闪光灯来补光，因此通过控制快门速度（根据选的光圈大小和 iso 值），很好的满足了窗户曝光的需要。

I bounced flash off that sand-coloured brickwork, and this did affect my colour balance - but since I shoot in raw, correcting the WB was no effort.

我把闪光灯打到一面沙子颜色的砖墙上，这确实会影响到白平衡，但我是以 raw 格式拍摄的所有后期调整白平衡并不十分费力。

With those two photos different flash exposure compensation was set.
In the first image, the flash was used as subtle fill-flash, and therefore the flash compensation was dialed down.

这两张照片设置了不同的闪光灯曝光补偿。第一张照片，闪光灯只是做轻微的补光用，因此将曝光补偿调低。

In the 2nd image, the bride's face is lit entirely by flash. Hence my flash is my main source of light. So I would have to start somewhere around 0 EV compensation. But from experience I knew that the lighter toned face, and white dress and the backlighting would influence my flash exposure. So I dialled in more flash exposure.

第二张照片，新娘的脸主要靠闪光灯来打亮，因此我的闪光灯就成了主光源。此时闪光灯的补偿值应大约为 0，但从我的经验来讲，新娘的脸的颜色较浅，在加上白色的衣服和背景光的影响，我应该提高闪灯的曝光补偿。

In this next image, I bounced my on-camera strobe off the wall directly behind me.

下面这张照片我将闪光灯打到我身后的墙上。
One of the best pieces of advice I can give regarding using bounce flash, is **not** to get stuck on the idea that you need a ceiling above you to bounce flash. Look around for other surfaces that can be used.

在用反射闪光的时候我的建议是，不要光想着找天花板，找找看周围又没有其它能用的。

By making my light source larger than just the area of the small flash tube, I am immediately making my light softer. And this is exactly the reason why we bounce flash.

通过反射闪光，光源面积将变的更大，光线也更加柔和，这也是我们为什么要用反射闪光的原因。

Before setting this up, I made a few test shots to see that the city lights are correctly exposed. Then I positioned the couple. Because I wanted to move around, I decided to use TTL and not manual flash - but this meant I had to bracket my exposures and ride my flash compensation.

在拍这张照片前，我先试拍了几张以确保楼里面的光线能正确曝光。接着我安排好这对夫妇的位置。因为我需要来回走动，因此决定不用手动闪光而改用 TTL 闪光。这也意味着我得调整闪光补偿进行曝光。

specific settings:

具体参数如下：
Canon 1Dmk2
Canon 24mm f1.4
1/20th @ f4 @ 640 iso
manual; eval metering
TTL flash: -1.7 exp comp

The slow shutter speed is to allow the city lights to record.

较慢的快门速度保证了城市中的光线能正确的曝光。

Because the flash and the city lights are vastly different in colour temperature, I fixed it in post-production. With raw, it was little effort to create two images with different WB settings, and then combining them with layers in Photoshop.

因为闪光灯和背景中的光线色温差别很大，因此在后期处理中我将 raw 文件处理成白平衡不同的两张照片，然后再 Photoshop 里面合成为一张。

dragging the shutter - balancing flash with available light

拖延快门—平衡闪灯和环境光

Here I want to touch a bit more on mixing flash with the available light, so that the mood of the setting is retained, or at least so the available light still adds to the image.

我还要对闪灯和环境光混合时的情况多说一点，从而能保证背景的细节被保留下来，或者至少环境光被保留到的照片中。

It is crucial to understand that within a certain range, shutter speed has no effect on flash exposure. This key will allow us to better mix flash with available light - by controlling the shutter speed.

至关重要的一点，要理解使用闪光灯时在一定的范围内快门速度不会影响曝光。这是通过控制快门速度使闪灯和环境光很好的结合在一起的关键所在。

With TTL flash, the camera & flash will follow our chosen aperture and iso combination - but this will also affect metering (and exposure) for available light. So this conveniently leaves us the shutter speed to control only the available light. It's very important to grasp this. By bringing the shutter speed low enough that available light registers on

the image, you can retain most of the mood of a setting by not over-powering it with flash. This is called **dragging the shutter**.

使用TTL闪光时，相机和闪光灯主要是根据我们选择的光圈的大小和iso的大小来调节闪灯的输出和曝光，当然这也会影响环境光的测光和曝光，此时我们就可以通过控制快门速度来控制环境光的曝光(因为如前所述，快门速度不会影响闪灯)。领会的这一点很重要。通过将快门速度降的足够低，并且闪灯不把背景打的过亮，你就能保留背景的大部分的细节。这被称作**拖延快门**（**dragging the shutter**）。

Have a look at these two photos. Not particularly wonderful, but they clearly illustrate a point.

看一下下面这两张照片，照片并不出彩，但却能很好的说明我的观点。

Both were taken seconds apart with two D100 cameras, each with exactly the same custom tone curve. Aside from resizing for the webpage, there was NO manipulation in Photoshop .. these images are straight out of the camera. And yet they look completely different.

它们是用两台 D100 间隔几秒钟拍摄的，两台相机使用了几乎相同的自定义曲线。除了用 Photoshop 调整了图片大小外没做任何处理，但它们看起来却是迥然不同。

1/15th @ F4.5 (400iso)

Exposure mode: Manual w/ Auto flash

28-70mm f2.8 AF-S

1/60th @ F5.6 (400iso)
Exposure mode: Program w/ TTL flash
24-85mm f2.8 - f4 D

I photographed the image on the left, and a photographer working with me as a second-shooter, took the image on the right. As you can see from the skin tones and the white of the shirt, the basic exposure for the groom is accurate enough for both photos. This difference is due to our camera settings. I used a much slower shutter speed, and a slightly wider f-stop. With this, I allowed nearly 3 stops MORE ambient light in. And it shows. The image on the left just looks so much better .. same opportunity, same setting, same subject .. but very different results.

我拍摄了第一张照片，我的助理摄影师拍摄了第二张。通过新郎的皮肤和白衬衫来看，两张照片中新郎的曝光都是正确的。两张照片的不同在于拍摄时设置的不同，我使用的更低的快门速度和更大的光圈，因此我几乎增加了 3 级的环境光的曝光，因此我的照片看起来更好一些。几乎相同的拍摄时机，相同的拍摄主体，但结果却大不相同。

The essential difference is that I chose my settings. I only shoot in manual mode, hence *I* decide on the results I want to get. And I got it. By shooting in Program Mode, the other photographer allowed the camera to make the decision - and the camera set a shutter speed that is too high. I wanted ambient light to register, and I set the f-stop and shutter speed to where I could see from my camera's built-in meter that I would get ambient light to register.

最根本的不同在于，相机的设置都是由我决定的，我使用了手动模式拍摄，因此我能决定拍摄的结果。而另一个摄影师用程序模式由相机来选择相应的参数，而相机选择的快门速度太高。我想要环境光曝光正确，因此我选择了相应的光圈和快门速度，并且通过观察相机的机内测光确保我的设置是正确的。

Even though the type of flash lighting used in these shots were quite different, the resultant look is nearly entirely dependent on the fact that I took the ambient light into consideration (via my camera's meter) and purposely set my shutter speed accordingly. btw, I used a Quantum Q-flash bounced into an umbrella behind me, and the other photographer used a Speedlight on-camera.

虽然这拍摄这两张照片使用的闪灯不同,但结果的不同主要是我考虑到了环境光而设置了相应的快门速度。另外我使用的是Quantum Q-flash 闪灯，并把它打到我身后的伞上，而另一个摄影师使用的是Speedlight 闪灯。

This technique of using a slower shutter speed to allow ambient light to register, is usually called "dragging the shutter." With this, you'd use your camera's light meter like you normally would.

这种使用较慢的快门从而使环境光也能保留到照片上的技术通常被称作拖延快门(dragging the shutter)，而此时你也需要机内测光的帮助。

.. but instead of using it to expose perfectly for just the ambient light, now you use it as a guideline as to how much ambient light you would like to register. And somewhere around 1.5 to 2 stops under-exposure will still give you enough detail in the background - and then you use flash as your main light source, and use the light from your flash to expose correctly for your subject.

到底需要保留多少的环境光呢？通常情况下降低1.5到2级曝光仍能保留足够的背景细节，接着用你的闪灯作主光源，从而保证被摄主体曝光正确。

Another example:

另外一个例子：

Once again, the two images look quite different. Going by the skin tones, the overall exposure is correct for both images. The difference comes in with how the ambient light was allowed to register in the second image.

这两张照片看起来也是非常不同。通过皮肤来看这两张照片的曝光都是正确的。不同在于第二张照片保留了环境光。

settings for 1st image:

第一张照片的设置：

1/50th @ f5 @ 500 iso

settings for 2nd image:

第二张照片的设置：

1/20th @ f4 @ 500 iso

I want to stress here, that these images where not manipulated in Photoshop, but were only adjusted for white balance in Adobe Camera Raw. So this is the kind of result you can see directly out of your camera already, when your settings are chosen with some thought.

我需要强调一点,这些照片都没有用 Photoshop 处理过,只是用 Adobe Camera Raw 调整了白平衡。因此如果你仔细考虑了相机的设置,也能直接拍摄出类似的结果。

By dropping my shutter speed and opening up my aperture a bit, I allowed a lot more available light in. It did help that he was standing in a area which is a little bit darker than the background area. This meant I could get away with a slow shutter speed, without noticable camera shake.

通过降低快门速度和增大光圈，保证了更多的环境光能进入相机。而新郎站在一个比背景暗一点的地方则能保证即时用了较慢的快门速度而出来的照片不虚。

(In both images I bounced the flash up and over my shoulder.) I've seen some photographers give advice like "shoot at 1/8th sec @ f5.6" .. but that kind of advice about exact settings is misleading, since every situation is different.

(这两张照片我都将闪灯打到了肩的上方)有些摄影师会建议拍摄时一般使用的参数为快门 1/8 秒，光圈 5.6。这具有一定的误导性，因为拍摄的现场条件是千变万化的。

The actual shutter speed chosen will depend on circumstance and the effect that you want,

快门速度的选择应取决于拍摄环境和你想要的效果，

- and the amount of ambient light that is available,

- 现场可用光的亮度

- and whether you have a tripod,

- 是否使用三脚架

- or can shoot with a steady hand at slow shutter speeds,

- 使用较慢快门时你能否端稳相机

- and the f-stop chosen,

- 使用的快门是多大

- and whether you can bump up the ISO to allow more ambient light in,

- 是否可以调高 ISO

- and how much subject movement there will be, or you will find acceptable.

- 可接受的被摄主体的移动痕迹

There are a number of interlinked factors here that you balance out depending on the scenario. But in the end, the photograph where the flash and ambient light is balanced by using an appropriate shutter speed, just looks so much better in comparison to a photo where the flash light completely dominates.

这些因素都互相关联，你必须根据不同的场景做出最好的选择。但无论如何，通过选择不同的快门速度平衡了闪灯和环境光出来的照片要比那种闪光灯占主导地位的照片好的多。

Here's an example where I dragged the shutter not only to get more available light,but purposely zoomed my lens during exposure, to add a sense of motion:

这儿还有一个例子，我降低了快门速度不但保证了环境光能保留到照片中，并且在按快门时我还一边变焦，从而产生了一种运动的效果。

Specific settings:

具体参数如下：

Nikon D2H; Nikon 17-35mm f2.8

1/15th @ f4 @ 800 iso / manual; matrix metering / TTL flash: -1 exp comp

The shutter speed and aperture and iso was specifically chosen so that the street scene would record in this image. I was fortunate that the couple was in a darker area, and therefore mostly lit only by flash. As I tripped the shutter, I also zoomed, thereby getting these streaks of light converging on the couple.

我选择了相应的光圈大小，ISO 大小和快门速度从而保证街景能被正确的纪录下来。并且幸运的是这对夫妇处在一个比较黑的位置，因此基本上只有闪光灯会影响到他们的曝光。我在边按下快门的同时边变焦因此取得了这种条纹状的光线向这对夫妇汇聚的效果。

Because they didn't fill the entire frame, I couldn't rely on the TTL metering of the flash to give me correct exposure, so I dialed down my flash exposure compensation.

因为这对夫妇并没有充满这个画面，因此我不能依赖闪光灯的 TTL 测光来保证他们的曝光正确，因此我调低了闪光灯的曝光补偿。

dragging the shutter FAQs:

拖延快门常见问题：

1. When you add flash to ambient light, don't you over-expose the subject?

当闪光灯的光叠加到环境光上时，被摄主体会不会过曝？

Speaking very broadly, there are two main scenarios (with any possible combination in between):

总起来说，有两种主要情况(或者两种情况之间的一些可能的组合)：

In the first scenario, the background is brighter than the subject, and you set your exposure to give near correct exposure for the background. Since your subject is darker than the background, they'd still be under-exposed. Then you use your flash to expose correctly for them. This is the simplest scenario.

第一种情况，背景比被摄主体亮。此时你需要保证背景曝光基本正确，然后用闪灯保证被摄主体的曝光正确。这是最简单的一种情况。

But usually what you'd encounter is low light situations where the background and your subject have about the same kind of light on them, and would need the same exposure. So what you'd do here, is intentionally under-expose for the ambient light - around 1.5 to 2 stops - so that the ambient light registers, but doesn't dominate. Since your subject would then still be under-exposed, you would then use your flash to expose correctly for your subject.

但通常遇到的情况是被摄主体和背景的光线大体相同，因此它们也需要相同的曝光。此时你要做的是故意降低环境光的曝光，通常减曝 1.5 到 2 级，从而保证环境光不占主导地位。此时被摄主体也是欠曝的，那么你就可以利用闪灯来保证被摄主体曝光的正确。

So by adding flash, you wouldn't over-expose your subject, since you are pulling down your ambient exposure. You will encounter a lot of different lighting situations, but those two scenarios cover the basics.

故意让环境光欠曝从而保证了在使用了闪灯后被摄主体不会过曝。你可能还会遇到其它不同的光线环境，但都可以根据这两种基本情况灵活加以处理。

bouncing flash
反射闪光

A single strobe gives hard shadows because it is a small sized source of light. The only way to soften the light, is to make the source of light larger. The most effective way of doing this with on-camera flash, is to bounce it.

一个闪灯往往会在照片上留下很强的阴影，这主要是由于光源的面积过小造成的。要想使光线变柔和，唯一的办法就是增加光源的面积。而在使用闪光灯时最有效的增加光源面积的办法就是反射闪光。

If you bounce the flash off a wall to the side of you, or behind you, then the source of light relative to the subject, is much larger than if you had shot with the flash straight on. There is a world of difference.

如果你把闪光灯打到你旁边或身后的墙上，相对于拍摄主体来说，此时的光源面积要比直接将闪灯打到主体上要大的多。拍摄出来的结果也是大不相同。

By bouncing off the ceiling, you will also soften the light - if you're using the correct angle. And here I want to stress something again - shooting with an omnibounce at 60'(or 45'), should not be a default way of using flash. For the best result, some thought needs to be put into how you use flash.

闪灯打向天花板时，也可以柔化光线，但此时你需要一个合适的反射角度。这里我要强掉以下，不能总以 60 度或 45 度反射。要想取得最好的结果你需要仔细的考虑以下闪灯的反射角度。

Remember, the angle of reflectance = angle of incidence. You have to be aware of how close you are to the subject, and how high the ceiling is, and the angle of your strobe's head. Keep in mind that the intended result is to have no discernable flash shadow.

需要记住，入射角度等于反射角度。你必须清楚你跟被摄主体之间的距离，天花板的高度还有你闪灯头的角度。并且要时刻铭记不能在照片上留下闪光灯造成的阴影。

Let's look at a few examples again:

先看几张照片：

This was shot at f2.8, with flash bounced over my left shoulder into the wall and ceiling behind me.

光圈 f2.8，闪光灯打到我左肩后方的墙和天花板上。

specific settings:

具体参数如下：
Canon 1Dmk2
Canon 70-200mm f2.8 IS
1/100th @ f2.8 @ 640 iso
manual; eval metering
manual; eval metering
TTL flash: 0.7 exp comp

My camera settings were dictated by the available light. I wanted enough of the window light to register, and the bedside table lamp that is shining through the bride's veil had to be bright, but not burn out all the detail in the veil.

相机的参数是根据现场光线确定的。我想保留足够的从窗户进来的自然光线，穿透新娘面纱的床头灯的光线也要保证足够的亮度，但又不能过曝弄丢了面纱的细节。

If the table lamp's light was much brighter, I would've set my shutter speed higher, and just have foregone the window light, and just relied on the bounced flash to give nice light on her face.

如果床头灯的亮度太大的话，我只能提高快门速度，牺牲从窗户上进来的光线而依靠闪光灯的反射光使新娘的脸部完美曝光。

If I bounce my flash by tilting and swiveling it, I get to bounce the light at an angle - away from the subject. Then the light that comes back, appears more directional. There are areas of shadow and light. Bounce flash need not look flat. By keeping the basic physics in mind of angles of incidence and reflectance, it is usually easy to figure out where to bounce from to enhance the available light, or how to make the bounce light soft but directional.

当需要倾斜和旋转闪光灯进行反射闪光的时候，我习惯于在闪灯和被摄主体间形成一定的角度，这样反射回来的光线就具有一定的方向性，从而形成一定的光影效果。反射反光不一定总是要制造平光。记住光线入射和反射的基本物理原理，通常很容易找到如何用闪光灯来加强现场光，或者使反射光线柔和但却具有一定的方向性。

Flash bounced upwards into the church ceiling with just a bit of the white bounce card out. NO direct flash.

将白色的反光卡抽出一点来,将闪光灯打向正上方的教堂天花板。没有直接闪光。

specific settings:

具体参数如下：
Canon 1Dmk2
Canon 70-200mm f2.8 IS
1/100th @ f2.8 @ 800 iso
manual; eval metering
TTL flash: 0 exp comp

Even though the ceiling was high, I chose a high enough iso that enough flash would register to help lift the light levels. It is also important that I set my exposure for the ambient light - and just used a touch of flash.

虽然天花板很高，但由于我将 iso 设的足够高因此反射回来的闪灯的光仍能将照片提高到足够的亮度。另外一点很重要，我是根据环境光线来设置参数的，只是用了一点闪光灯的光。

I mostly shoot with TTL flash (whether D-TTL or i-TTL or e-TTL) when I shoot with on-camera flash. Off-camera flash is usually easier to deal with as manual flash.(More on this later.)

我大多数情况下使用 TTL 闪光（不管是 D-TTL，i-TTL 或 e-TTL）。当使用离机闪光灯时，我一般会使用手动闪光(稍后我会详细交待)。

Since I shoot with TTL, I don't often use the full power that the strobe is capable of, unless I'm using the flash at the extreme end of what it can push out. If your flash is your main source of light, it is important that you stay within the range of the flash's output capabilities, with an appropriate iso and aperture selection.

因为我用了 TTL 闪光，所以我就很少使用闪光灯的最大输出，除非我与被摄主体直接的距离较远，达到了闪光灯的最大距离的时候。如果你要将闪光灯作为主光源，那么你就需要调节相应的 iso 和光圈，从而保证不超出闪光灯的输出能力，这一点很重要。

Bouncing your flash also reduces your flash's output considerably - but your flash will compensate for this loss automatically if you shoot in TTL or Auto mode on the flash. That is, if you stay within the flashgun's power range.

反射闪光也会减少闪光灯的输出，但是如果你用的是闪灯的 TTL 模式或自动模式，闪光灯就会自动进行补偿。当然前提是在闪光灯的出处范围之内。

The direction I bounce in, depends on:
- where is the nearest or most convenient wall, or
- which direction I need the flash to fill in from.

闪灯打向的方向主要取决于：

- 最近的墙或者比较方便的墙在哪里，或者
- 哪个方向需要用闪灯打亮

Here I wanted to fill the shadow side, so I obviously had to bounce some flash in from that side.

这张照片中我需要将闪灯打向有阴影的一面，因此我显然需要从这个方向将闪灯的光反射回来。

There wasn't a specific wall nearby, but I bounced my flash behind me into the room from that side, and enough light spilled back to reduce the contrast.

但是旁边没有墙，所以我就将闪光灯打向旁边的房间，足够的光线反射回来减少了反差。

specific settings:

具体参数如下：
Nikon D100
Nikon 85mm f1.4
1/125th @ f1.4 @ 200 iso

manual; matrix metering
TTL flash: 0 exp comp

In this instance I wanted the shallow depth of field that f1.4 offers me, and I kept my iso lower to reduce the ambient light at that aperture. My strobe was in TTL, and gave me enough light to lift the shadow areas.

在这个例子中，我想要取得小景深，因此选用了 1.4 的光圈。同时为了减少照片中的环境光我选用了比较低的 iso。我的闪灯为 TTL 模式，因此闪灯提供了足够的光线来提升阴影区域的亮度。

Sometimes during outdoors evening shots, I'll bounce the on-camera strobe into an umbrella that is hand-held by my assistant. He then moves in tandem with me, as I move up and down, or forwards and back. Yup, I hate direct flash that much.

在夜晚拍外景的时候，我会将闪灯打向我的助手为我拿着的伞上。在我来回移动着拍摄时，我的助手也要随着我移动。呵呵，我真的是非常讨厌闪灯直射。

Specific settings:

具体参数如下：

Nikon D100; Nikon 17-35mm f2.8
1/6th @ f4.5 @ 400 iso / manual; matrix metering / TTL flash: 0 exp comp

There's another flash going off to the left and behind the couple that I triggered with a radio transmitter attached to my camera. So this isn't entirely on-camera flash - the image was helped by the strobe kicking in some back-lighting. This was with a camera (Nikon D100) that doesn't have wireless TTL - but even so, wireless TTL would've failed here, since it relies on line-of-sight.

在这对夫妇的左后方还有一个闪灯，我用装在相机上的无线触发器触发它。因此这张照片不单单是机顶闪灯的效果，它还依靠另一个闪灯提供的背景光。这张相片使用尼康的 D100 拍摄的，它不支持无线 TTL 闪光。但即使有无线 TTL 闪光在这张照片中也无用武之地，因为无线 TTL 闪灯需要离机闪灯和相机直接无障碍物。

For this photo I once again had my flash bouncing over my left shoulder, into the wall and ceiling behind me. By bouncing flash this way, I was trying to emulate soft light from a large window.

这张照片我也是将闪灯打到我左肩后方的墙和天花板上。这么做我是想模拟从一扇大窗户里进来的柔和的光线。

Bouncing upwards into the ceiling from where I stood, wouldn't have given as soft and even light as this.

如果将闪灯打到我所处位置的天花板上则取得不了照片中这么柔和均匀的光线。

specific settings:

具体参数如下：
Canon 1Dmk2
Canon 24-70mm f2.8
1/125th @ f2.8 @ 400 iso
manual; eval metering
TTL flash: +1 exp comp

using wireless TTL flash

使用无线 TTL 闪灯

Cameras which are capable of utilizing wireless TTL flash allow you much more flexibility right on the spot. If your camera and flash system allows for this, it really is worth your time and effort to figure out how to use it.

支持无线 TTL 闪灯的相机在使用上将更加灵活。如果你的相机有这个功能，那么绝对值的花些时间研究一下如何使用这个功能。

Have a look at Dave Black's website to see what is possible with wireless TTL flash on location. He is a master at this.

可以看一下Dave Black的网站，看看无线TTL引闪都能干些什么。他是这方面的一个大师。

I use it in a much simpler way during weddings, in order to shoot fast, but still have the ability to expand from just a single on-camera flash.

在拍摄婚礼的时候为了追求拍摄速度，我一般只是使用比较简单的离机引闪，即使如此这也能大大弥补一个机顶闪灯的不足。

Here I first tried a test shot, bouncing my flash to my right behind me. It looked flat, and I wasn't happy with the way the wall was blown out in the mirror.

我先试拍了一张，我将闪灯打向我的右后方。它看起来光线很平，并且我对镜子中的墙过亮也不满意。

I keep two cameras on me at all times - each with a strobe attached. And either of those strobes are ready to be used as a master or slave.

我总是带两台相机在身上，没个都带一个外闪。两个外闪都设置好随时都可用做主模式或者从模式。

In this instance I had my assistant stand in the corner away from the bride and me, and he had to point the flash (still on the camera), towards the wall and ceiling to the front and left of the bride.

在这个例子中，我让我的助手站在离我和新娘不远的角落里，将闪灯(此时闪灯扔装在机器上)对准新娘左前方的墙和天花板。

I disabled the output from my own camera's speedlight, but allowed it to trigger the slaved speedlight that my assistant was holding.

我将自己机器上的闪灯关闭，只是让它来引闪我助手手中的闪灯。

specific settings:

具体参数如下：
Canon 1Dmk2N w/ 580EX
Canon 24-70mm f2.8 L
1/100th @ f5 @ 500 iso
manual; eval metering
TTL flash: +0.3 exp comp

An important thing here to keep in mind, is that using a diffuser cup over my strobe would've thrown too much light forward - giving it a clearly artificial look. The way I used it here, the light looks natural - as if it might have been soft light from a large window.

需要记住重要的一点，如果使用柔光罩的话，光线会太强，这样会导致人工痕迹太重。而我采用的方法则让光线看起来更加自然，如同从一扇大窗户里进来的柔和的光线。

In this photo, there is very little ambient light - it is pretty much all just flash. In fact, just a single speedlight as my light source - but I drastically improved my results by doing two things:
- bouncing my flash off a wall and ceiling, thereby softening the light, and
- moving my source of light away from the camera, thereby creating more directional light.

这张照片中的环境光很少，基本上都是闪灯的光线。并且是只用了一个闪灯作为光源。我通过做以下两件事情使结果大为改观：

- 将闪灯打向强和天花板使光线变的柔和
- 使用了离机引闪使光线更具有方向性

flash outdoors

户外使用闪灯

Speaking very broadly, there are two ways of using
on-camera flash outside - either as:
- a slight fill-flash, or as
- a brute light source to lift the shadow areas of a subject to the same level as the sunlit areas.

总体来讲在户外拍摄时有两种方法使用机顶闪灯：

- 作为轻微的补光用
- 强力补光，将阴影面的亮度提高到与阳光照射面一个水平

Of course, in between that, there is a wide spectrum of possibilities, but for simplicity of explanation, I'll show examples of those two extremes.

当然，在这两者之间还有许许多多其它的可能，为了简单起见，我只说这两种极端的情况。

Metering correctly for ambient light is key here. It's important that you understand how shutter speed, aperture and ISO inter-relate.

在这里正确测光是关键所在，理解快门，光圈和快门之间如何相互管理非常重要。

The following three photos are really simple in their execution. I metered correctly for the available light, and then shot with flash straight on - but my flash exposure compensation was dialed way down.

下面这三张照片拍摄起来都很简单。我先是正确测光，然后直接将闪灯打到被摄主体上，只是我调低了闪灯的曝光补偿。

It is as simple as juggling the three inter-dependent controls - shutter speed, aperture and iso.

这其实就跟调节快门、光圈和 iso 一样简单。

When I shoot this way outdoors, I usually dial my Canon speedlights down to around -2 to -3 stops. But with Nikon strobes I tend to dial down less - usually around -1.3 or -1.7 ... because I then use the Nikon speedlights in TTL BL mode, which balances flash automatically with ambient light.

在户外拍摄的时候，我一般将佳能的 speedlights 闪灯调低 2 到 3 级，但是在用尼康的闪灯的时候我一般只调第 1.3 到 1.7 级，这是因为我的尼康闪灯设为 TTL BL 模式，它会自动平衡环境光。

The idea here is to just use the flash to lift the shadows, and avoid shadows under the subject's eyebrows. The flash should ideally be imperceptible, and is really only used as fill-light. Just to round out the variety of cameras used, I should mention that the above photo was taken with a Fuji S2.

上面这张照片主要用闪灯来提升阴影处的亮度并且避免新娘眉毛处形成的阴影。闪灯的使用痕迹最好不要被观察到，因此闪灯只是被用作轻微补光。另外要提一点拍摄这张照片使用了与已往不同的相机 Fuji S2。

Flash straight on, but dialed down because I wanted it as a touch of fill light only.

闪灯直接打向新娘，但是调低了曝光补偿，因为我只想轻微补光。

specific settings:

具体参数如下：
Nikon D2H
Nikon 70-200mm f2.8 VR
1/250th @ f3.5 @ 200 iso
manual; matrix metering
TTL flash: -1.7 exp comp

The wide aperture was chosen for the minimal depth-of-field. I wanted the autumn leaves as a soft mush in the background.

选用大光圈是为了取得小景深，这样新娘身后的黄叶能形成柔和的光斑。

My exposure was chosen by chimping and making sure that the exposure on her skin was good without flash.

我在选择曝光参数的时候保证了即使没有闪灯，新娘的皮肤也能正确曝光。

I used the same simple technique here as well for daylight fill-flash as with the previous photographs on this page.

拍摄这张照片使用的闪光灯方式跟前一张相同。

I set my camera to expose for ambient light, and then used flash which I dialed down.

我设置相机使环境光曝光正确，接着使用闪灯并调低曝光补偿进行补光。

specific settings:

具体参数如下：
Canon 1Dmk2

Canon 70-200mm f2.8 IS
1/250th @ f2.8 @ 100 iso
manual; eval metering
TTL flash: -3 exp comp

Unless you want the background to blow out, or the shadow areas to go black, you're compelled to try something to balance the shadow areas with the brighter sunlit areas.

除非你有意想突出明亮面或者突出阴暗面，多数情况下你需要尽力去平衡明亮面和阴暗面来降低它们的反差。

The easiest way is usually with an on-camera strobe. To help with contrasty situation here I had to blast a lot of flash in order to balance the exposure between the couple and the setting. So here the light from my flash isn't as subtle as the previous examples - but it was a necessity in order to get the photograph, and still shoot while on the move.

做到这一点最简单的方法就是使用闪光灯。上面这张照片，这对夫妇和背景的反差非常大，此时为了平衡他们和背景之间的曝光我就必须调大闪灯的输出。此时就不能像前面的几个例子一样只用很少的闪灯输出。当然因为这张照片是在这对夫妇移动时拍摄的所以增大闪灯输出也是必须的。

specific settings:

具体参数如下：
Canon 1Dmk2
Canon 24-70mm f2.8
1/250th @ f8 @ 200 iso
manual; eval metering
TTL flash: 0 exp comp

camera in manual metering + flash in TTL mode

相机手动模式时的测光+闪灯的 TTL 模式

I mostly shoot in Manual Exposure Mode, and for very specific reasons:

多数情况下我选用手动模式拍摄，有以下几个原因：
- I want to control the accuracy of exposures,
- I want to control the consistency of exposures,
- I want to control the depth of field,
- I want to control subject / camera movement.

- 我想控制曝光的正确性
- 我想控制曝光的一致性
- 我想控制景深
- 我想控制被摄主体(或相机)的移动

None of the other exposure modes give me this.

任何其它的模式都满足不了我上面所有的需求。

I do sometimes switch to Program mode if need to swing my camera continually between heavy shade and bright sunlit areas. But this is rare. Most times *I* want to be in control of my exposure metering for consistency and accuracy.

当然在极少数的情况下，当我的拍摄需要不停的在极暗的阴影下和明亮的太阳光下转换时，我会将相机设为程序曝光。大多数情况下，我都想自己控制相机的曝光以确保其一致性和正确性。

There's a side-effect to using automatic metering that I've noticed among newcomers to photography - there is a tendency to blame the camera. It's a subtle shift in mind-set, but it is there. Instead of assuming responsibility and learning about good technique, it becomes a quest for a camera that will do it all.

用自动测光还有一点不好，特别是对于一些新手，他们经常的倾向于埋怨相机有问题。这种想法很不对头，你应该想法学习和使用合理的技术，而不是把一切都依靠相机。

With manual metering **you** are in control. So if there is a problem, **you** are the one that needs to figure out why, and how to improve on it. You decide. Not the camera.

使用手动测光的时候，你自己控制所有的东西。是你自己决定，而不是相机，怎样去取得好的结果。

OK .. so I can see your next question would be :

恩，我现在已经知道你下一个要问的问题是什么了：
Why would setting the aperture and shutter speed be different from using say, aperture priority and have the camera select the shutter speed?

为什么手动模式跟其它模式，比如光圈优先模式让相机选择快门，不同？

Well, the reasons are ..
- your camera's meter relies on the reflectivity of the subject and assumes mid-tone grey. Even with matrix / evaluative metering your camera can only guess at what you're trying to achieve.
- if you use Program or Aperture Priority while using TTL flash as your main source of light, your camera will vary your shutter speed between shots, and your ambient light will therefore vary.

原因如下：

- 相机的测光依赖于被摄物体的反光，并把它们假设为 18 度灰。即使使用矩阵测光(或评价测光)相机也只能猜测你将要拍摄的是什么。
- 如果你用程序模式或者光圈优先模式拍摄，并且用TTL闪光作为你的主光源，相机会在不同的拍摄之间选择不同的快门速度，因此照片中的环境光也会不同。

You have to understand the **limitations of auto metering**, whether in camera or with TTL flash - and that lighter or darker tones within the same picture area, will affect your meter. And you most likely don't want it to. You want a lighter tone to appear light in the final photo. You want darker

tones to appear dark. If it is an even mix of tonal values, then you'll most likely get an accurate meter reading in one of the auto modes.

你必须理解相机或闪灯自动测光的局限性，如果被摄区域里有比较明亮的区域或者比较暗的区域这都会影响测光的结果。可能你并不希望如此，你想要的结果是亮的地方不那么亮，暗的地方不那么暗。如果被摄区域影调比较均匀的话，用任何一种自动模式你都能得到正确的曝光结果。

There are also specific reasons why I don't use general exposure compensation. BUT ... I do use flash exposure compensation all the time, since I use TTL flash outside of a studio. Because the reflectivity and tonality of the scene that my camera's meter is reading changes all the time, I have to ride my TTL flash exposure compensation all the time.

我一般不用相机的曝光补偿(参加这里)。但我却经常使用闪灯的曝光补偿。原因在于在我的工作室外进行拍摄时我一般使用TTL闪灯，并且外景中场景的反光特性和影调也经常变化，所以我必须依赖于闪灯进行曝光补偿。

So how do I meter ?

我是怎样测光的？

In film days I would use a flash-meter for flash. For available light I mostly just carefully used my camera's built-in meter.

在胶片时代，用闪灯时我会用闪灯测光表。对环境光测光时我一般会用相机的机内测光。

With digital, I still largely meter like that. But we have more tools available to us with digital.
So for me it has become an iterative process of:
- checking my **camera's meter**,
- checking the **histogram**
- and **blinking highlights** display,
- checking the **image on the LCD**, (although this isn't an accurate assessment of exposure),
- **experience.**

在数码时代，我大部分时间还是如此。但在工具上我们有了跟多的选择。

我一般重复做以下几个步骤：

- 检查机内测光

- 检查直方图
- 检查回放时有无高光提示
- 在 LCD 上检查拍摄的图像(尽管这样来检查曝光的正确性不太准确)
- 凭自己的经验判断是否曝光正确

There is no fixed recipe in approaching metering in all kinds of situations. It's a mix-n-match of different techniques - all used to make sure I get optimum exposure for my images.

当然因为情况多种多样，不可能有一种固定方法能适用于所有的情况。一般需要多种技术进行组合以取得最好的曝光。

Ambient light, without flash

不用闪光灯

The reason why I strongly suggest shooting in manual exposure mode 99% of the time, is that for a specific outdoor scenario, the lighting normally doesn't vary much. And by determining proper exposure, your photos will look consistent in a sequence of photos,
- regardless of composition, and
- regardless of how wide or tight you're zooming, and
- regardless of the reflectivity of your subject matter (eg, lots of bright tones), and
- regardless of whether you have bright sky in a wide shot, or not, with a tighter composition.

我之所以建议 99%情况下用手动模式的原因在于在室外拍摄的时候，大多数情况下在同一个场景中光线的变化不会很大，因此一旦你设定了正确的曝光参数，那么在你接下来的拍摄中得到的照片的曝光也会基本一致，

- 无论你拍摄的是什么
- 无论你用的是广角还是长焦
- 无论你的被摄主体的反光特性如何(比如比较明亮)
- 无论拍摄时(不管广角还是长焦)是否有明亮的天空

If under the **same even light** and **within the same setting**, you're shooting vertical and horisontal and wide and tight and from a high viewpoint and a low viewpoint ... your exposures will vary unless you're shooting in manual. It's the ONLY way if you want to get consistent exposures.

即使在相同的均匀的光线下，有着相同的背景，当你采用不同的拍摄方式时，比如横拍或者竖拍、用广角或者长焦、从高视角拍摄或者从低时间拍摄，除非你采

用了手动模式，否则曝光都会发生变化。用手动模式拍摄是你取得曝光一致性的唯一途径。

With this consistency in exposure, your digital workflow will be much easier. Even more so if you shoot in raw. Now, that is for ambient light. Onto flash. This gets slightly more complicated.

这种曝光的一致性会令你的后期处理更加简单。如果你是用 raw 拍摄的话，则会进一步增加简单性。当然这只是对只有环境光而言，加上闪光灯的时候，事情会变的更加复杂一些。

Manual flash

手动闪光

If you have strobes set up that are in a constant position in relation to your subject, such as with in a studio setup, then the ideal way is to shoot with manual flash. Using a flashmeter for this is usually the easiest way to determine exposure. This will fix your exposure to your chosen ISO and aperture.

如果你的闪灯相对于被摄对象的位置比较固定，比如在影棚里一般就是这种情况，那么比较理想的方法就是使用手动闪光。此时使用闪灯测光表则是取得正确曝光的一种最简单的方法，它会根据你选择的光圈和 iso 来确定正确的曝光参数。

If you're using on-camera flash and keeping in a static position in relation to your subject then it might be easier to use manual flash. This will once again keep your exposures consistent within a series of shots. With digital, you could do a few test shots, and chimp to figure out the correct exposure with your flash in manual. For a single photograph, it might just be simpler to shoot with TTL flash anyway.

如果你的闪灯装在机顶，并且与被摄对象之间位置固定，则使用手动闪光更加简单。这也能保证你拍摄过程中的曝光一致性。如果用数码相机，你可以试拍几张，然后从中选出曝光正确的一张。如果只拍一张的话，则使用 TTL 闪光会更简单写。

Auto / TTL flash

自动/TTL 闪光

But as soon as you have flash on-camera, and you are moving around in relation to your subject, then you're better off with some kind of automatic metering of your flash. This means using your flash in Auto mode

or in TTL mode. It really will make your life simpler with digital photography, to not shoot with manual flash in this case.

如果你将闪灯装在相机上，并且与被摄对象之间位置不固定，则你最好使用闪灯的自动测光。即自动模式或者 TTL 模式。特别是数码摄影的时候，不使用闪灯的手动模式将是拍摄变的更加简单。

But now we run into the problem that suddenly the flash output is affected by the reflectivity and tonal values of the subject and the scene. Remember, your camera's meter will try and expose for any scene in the frame, as an average tone. Neither bright, nor dark. This is true for automatic flash as well. Which means you will HAVE to **ride your flash exposure compensation** to get optimum results with flash photography ... if your flash is the dominant source of light.

此时我们不得不面对另一个问题，闪光灯的输出将被被摄主体和场景的反光特性和色调所影响。这种如我前面所说的相机会对取景框内的所有场景取平均色调进行测光一样，这同样适用于自动测光闪灯。这也就意味着，当你用闪灯作主光源的时候，你就必须依靠闪灯的曝光补偿来取得最佳的曝光效果。

If your flash is only fill-flash during daylight, then most likely the best use of flash will be as soft fill-flash. And in that case, the best results are usually with the flash exposure compensation dialed way down. And hence, the reflectivity of the subject will seem to have less impact on the exposure, since our exposure will be primarily for the ambient light.

在户外摄影时如果闪灯是作为补光用，则应使闪灯的光变柔和，即调低闪灯的曝光补偿，此时被摄物体的反光特性对闪灯测光的影响将会降低，因为环境光才是主要的光源。

When I shoot this way outdoors, I usually dial my Canon speedlights down to around -2 to -3 stops. But with Nikon strobes I tend to dial down less - usually around -1.3 or -1.7 ... because I then use the Nikon speedlights in TTL BL mode, which balances flash automatically with ambient light.

在户外拍摄的时候，我一般将佳能的 speedlights 闪灯调低 2 到 3 级，但是在用尼康的闪灯的时候我一般只调第 1.3 到 1.7 级，这是因为我的尼康闪灯设为 TTL BL 模式，它会自动平衡环境光。

But this also depends on how much flash we need to use as fill-flash. If we're photographing someone in the shade, and we need to bump the exposure up to match a sunlit background, then we're going to need a lot more flash. And therefore the flash exposure compensation will most likely be around

zero. There are no easy answers. Anyone who tells you there is one magical do-all setting for flash, is lying to you.

但曝光补偿量往往取决于我们需要多少的闪灯输出。如果我们拍摄的目标在阴影里，我们就需要加大闪灯的输出来平衡背景中的太阳光，此时闪灯的曝光补偿大概在 0 左右。补偿量的大小需视情况而定，没有一个固定的值，如果有人告诉你有这么一个值，那么他一定是在骗你。

Being ready is half-way there ..

做好准备工作是成功的一半

It is important that you start to anticipate things .. for example, if I am shooting indoors where my flash is my dominant light source, I'll most likely be shooting at 400 ISO or thereabouts, and using a slowish shutter speed to get some ambient light in .. say around 1/40th or so, but it really depends on the scenario. I'll also be using wide-ish apertures.

事先做好估计非常重要，比如，我要在室内摄影以闪灯作为主光源，此时我就会想到应该采用大约 400 的 iso，使用较慢的快门来保留环境光，比如大约 1/40 秒。当然实际的值需根据实际情况而定。我还会想到使用比较大的光圈。

My Nikon SB-800 Speedlight will be set to TTL (and not TTL BL) and most likely have +0.3 exposure compensation dialed in ... since it is the dominant light source in this set-up.

我的尼康 SB800 闪灯会被设置为 TTL 模式(不是 TTL BL)，因为它是主光源，因此大约需要+0.3 的曝光补偿。

With Canon, this varies. With my 1D mk2 bodies, I usually kept my flash exposure compensation to +0.7 as a default starting point. (I've heard of 20D shooters doing the same.) With my 1D mk2N bodies however, I've found that a default of 0 flash exposure compensation is best. (5D shooters have reported similar.) Also, with the 1D mk2(N) bodies, I have set Custom Function 14 to "Average". I found that when my flash is the main source of light, that using "Average" here gives me the most predictable results.

如果是用佳能的话，则情况会有所不同。用 1D mk2 时我一般会将曝光补偿设为 +0.7(我听很多 20D 的用户也是这么做)。用 1D mk2N 时，将曝光补偿置为 0 则会取得较好的结果(也听 5D 的用户也这么说过)。关于 1D mk2(N)的机身设置，我会将用户设置的第 14 项置为“平均”。因为我发现当用闪灯作主光源的时候，将其置为“平均”会得到我想要的结果。

Moving from dimly lit indoors to bright light outside,
I do three things as a matter of course as I step through the doorway:
- I dial down to my lowest ISO,
- I dial to my highest flash sync speed,
- and I set my aperture to an approximate value.

当从室内移动到户外时，我会做以下几步：

- 将 iso 的值调到最低
- 将快门速度调为闪灯同步速度
- 将光圈置为一个比较合适的值

If I had been shooting indoors at f2.8 and f4, then I will be needing smaller apertures outside. For 100 iso, 1/250th, you're looking at something like f11 outside ... so I'll set f11 and fire off a test shot or two at a general scene and chimp quickly to see histogram, and blinking highlights, and then fine-tune my exposure. All of this in a few seconds .. and then I'm ready.

如果我在室内用的 2.8 或者 4 的光圈，那么在室外时我将需要更小一些的光圈。对 iso100, 快门 1/250 秒来说，在户外大概需要的快门为 f11 左右。接着我会将光圈调为 f11，然后试拍几张，察看以下直方图并检查一下有无高光报警，再根据情况对光圈进行调整。只需要几秒钟的时间，我就又准备好了。

Overcast days will mean a different aperture than f11 for bright days, but 100 iso and 1/250th is always my starting point for Canon D-SLRs. If it is heavily overcast, I'll go to 200 iso, but I nearly always try to keep to as high a sync speed as possible.

阴天的时候一般会用不同与 f11 的光圈，但我用佳能相机时一般会保持 100 iso 和 1/250 的快门速度不变。如果天阴的很厉害，我就会用 iso200，但我会尽力使用尽可能快的闪光同步速度。

With Nikon D-SLRs, my starting point is 1/250th @ f10 @ 100 iso. This is because the there is a difference in the sensitivity of the sensors of the various camera manufacturers.

在用尼康相机的时候我会用 1/250 秒 @ f10 @ 100 iso 的组合，这主要是因为不同厂商制造的传感器的灵敏度不一样。

So moving from an indoors setting, as I step outside, my camera settings are pretty close to where I need to be. No fumbling for settings. I'm ready ... because I anticipated what I'd need.

当我从边室内走出来的时候，我已经边把相应参数设好了，并且这些参数已经基本接近于我的需要。不用再去摸索，我已经准备好了，因为我已经估计到了什么是我需要的。

flash exposure compensation

闪灯曝光补偿

There are two different kinds of exposure compensation :

一般在摄影过程中，有两种方式进行曝光补偿：

- overall exposure compensation.
This is set on the camera body - and affects BOTH ambient and flash exposure for Nikon, but only the ambient exposure with Canon cameras.

- 总体曝光补偿

总体曝光补偿一般在机身上设置。对尼康机器来说设置了后既会影响环境光也会影响闪灯的输出，而对佳能机身来说则只会影响环境光。

- flash exposure compensation.
Setting flash exposure compensation affects the flash output only. Ambient exposure is unaffected. This can always be set on the flashgun itself, but some cameras have a button on the camera body itself where the flash compensation can conveniently be set without taking your eye from the viewfinder.

- 闪灯曝光补偿

设置闪灯的曝光补偿将只会影响闪灯的输出，不会影响环境光。闪灯曝光补偿一般需要在闪灯上设置，但有的相机在机身上提供了一个按钮来设置闪灯的曝光补偿，这样你就可以眼睛不离开取景器进行曝光补偿的设置了。

Exposure compensation is used with the automatic metering modes, however ... with most Nikon cameras, dialing exposure comp in manual exposure mode will bias the meter. With Canon, you can't dial exposure compensation in manual exposure mode.

曝光补偿只有在自动测光的时候才用得着。对大多数的尼康机器来说在手动模式下仍然可以调整曝光补偿值，而对佳能机器来说则不行。

Flash exposure compensation is used to compensate for the flash output when the flash is used in Auto or TTL mode. It obviously can't be set when the strobe is used in manual output.

闪灯曝光补偿只有闪灯在自动或 TTL 模式时才能设置，当闪灯为手动模式时，你无法设置其曝光补偿值。

Firstly, exposure compensation in general ..

首先，说一下通常情况下的曝光补偿

What many new photographers have trouble coming to grips with, is the concept of :
1. adding exposure compensation when the scene / subject is light in tone,
2. and decreasing exposure compensation when the scene in front of the lens is darker in tone.

一些摄影的新手经常被下面两个概念给搞糊涂了：

1. 当被摄主体或场景颜色较浅的时候需要增加曝光补偿
2. 当被摄主体或场景颜色较深的时候需要减少曝光补偿

The reason for doing so, is that your camera's meter tries to expose for everything as a middle grey tone.

这么做的原因在于，相机总是将被摄对象假定为 18 度灰。

Hence, if you are using one of the auto modes (or Auto / TTL flash), the camera will expose any light toned scene as if it should be of an average tonality. In other words, the light toned subject / scene will be exposed as middle grey. Eg, someone in a white dress against a white wall, will appear under-exposed. So you need to bump the exposure compensation up for lighter toned scenes.

因此当你使用相机的任何一种自动模式拍摄时(或闪灯为自动或 TTL 模式)，相机就会将那些浅颜色的物体也假定为 18 度灰，举个例子比如有人穿着白衣服站在白墙前，这个时候相片就会欠曝，此时你就需要增加曝光补偿来提高色调。

The same reasoning goes for darker toned scenes. A man in a dark suit against a dark brick wall, will have skin tones which over-expose if you left the camera to its own decision. The dark tones would fool the camera's meter.

同样对于黑色的场景，一个人穿黑色衣服站在黑砖墙前，如果让相机自己选择曝光的话，他的皮肤将会过曝。黑色的场景将会欺骗相机的测光表。

To make it even more clear, let's think about this scenario:

为了说的更名白，我们考虑如下情形：

We have a setting where the light is consistent and even. So there will be an exact combination of aperture / shutter speed / ISO settings which will give correct exposure for skin tones.
Now, if our subject dresses in all black or all white clothing, our meter reading will change ... yet, the light didn't change. In other words, we would still need the same exposure, regardless of the variation in our camera's light meter reading.

我们有一个光线均匀且一致的背景，一个人站在背景前，在这种情况下会有一个确切的光圈、快门和 iso 的组合能保证皮肤被正确曝光。此时如果让这个人穿上全白的或者全黑的衣服，此时你会发现测光表的读数发生了变化，虽然光线并没有发生变化。尽管测光表的读数边了，但我们需要的实际曝光量是没有变化的。

So if you insisted on using automatic exposure, then you would have to use exposure compensation. And you would have to vary your exposure compensation depending on your composition - because the size of the light / dark patches of clothing and background will affect your meter reading.

因此如果你非得用自动曝光模式的话，你就必须要使用曝光补偿。你需要根据实际情况对曝光补偿进行调整，衣服上白色系和黑色系的多少以及背景都会影响到你的测光表。

The same reasoning goes with using Auto or TTL flash. You **have** to continually adjust your flash exposure compensation, dependent on the tonality of the scene in front of your lens.

同样，当闪灯为自动模式或者 TTL 模式时，你也需要根据场景色调的变化调整其曝光补偿。

Also, please read the pages on exposure metering using your camera's meter, as well as the explanation of why using exposure compensation in an auto exposure mode, is much harder work than using manual exposure mode.

另外你可以看一下如何使用机内测光，以及使用自动模式时怎样进行曝光补偿。在我看来这要比使用手动模式复杂的多。

This is the reason why I use manual exposure mode nearly exclusively. But then you may very well ask why I use TTL flash (or Auto flash) instead of manual flash ... ... and the reason why I use TTL flash is that TTL flash is easier to control when I am constantly changing position in relation to my subject. And as I explained on this previous page, it is

easier for me in these situations, to use the camera in manual exposure mode, and the flash in TTL / Auto mode. But this means that I have to constantly change my flash exposure compensation. Which finally brings us to the rest of the discussion on this page ...

这也是我为什么使用手动曝光的原因，可能你要问了你为什么使用闪灯的 TTL 模式而不使用其手动模式？原因在于我需要经常改变自己跟被摄对象之间的位置，这种情况下使用 TTL 闪光更加易于控制，我在文章的前面也提到了。但这也意味着我需要不停的根据情况调整闪灯的曝光补偿。这也是我要在本章说的最后一个问题。

Flash exposure compensation when using fill-flash ..

用闪灯补光时怎样进行曝光补偿

With fill-flash (using TTL or Auto flash), you will most often dial down your flash exposure compensation to give only a tiny bit of fill light. So in this case, your flash exposure compensation will be around -1 to -3 EV. But it depends on the tonality of your subject as well.

当用闪灯进行补光时(自动闪光或 TTL 闪光)，多数情况下需要调低曝光补偿来减少补光的量。通常情况下需要降低 1 到 3EV，具体值还要视拍摄对象的色调而定。

But when your flash is your main source of light, you will usually hover your flash exposure compensation around 0EV to +0.7 EV depending on the camera and camera system ... and of course, the tonality of your subject and scene. So your flash exposure compensation could still range anywhere from around -2 EV to +3EV.

当你用闪光灯作为主光源的时候，根据不同的相机和不同的场景和被摄主体的色调，你通常需要将闪灯的曝光补偿调为 0EV 到+0.7EV.此时你的闪灯还有大约从-2EV 到+3EV 的调整空间。

Once again I want to stress a particular point - there are no specific or fixed settings. There are just too many variables for anyone to give specific 'do-all' settings.

再次强调，没有一个固定的值可以适合各种情况，因为影响补偿值的因素太多，不可能有一个一劳永逸的设置。

There are a number of factors which would affect how your camera and flash meters TTL flash, and would therefore affect how much flash exposure compensation needs to be dialed in:
- reflectivity of your subject,
- how much of your frame is filled by the subject, and

- how far the subject is from the background, and
- whether the subject is off-center or centered in the frame,
- the individual camera's exposure algorithms that the camera designers came up with,
- available light - (this ties in with how the camera's metering algorithms work),
- back-lighting - (strong back-lighting always require a lot more flash exposure compensation).

有很多因素都会影响到相机和闪灯的测光，同时这些因素也决定了曝光补偿的量：

- 被摄物体的反光特性
- 这个物体在取景器占的比例
- 这个物体距离背景的距离
- 这个物体是否处于取景器的中央
- 不同相机的曝光特性
- 现场可用光的多少，(这和相机的测光算法紧密相连)
- 背景光线，(如果背景光线比较强的话，则需要更多的闪灯曝光补偿)

Therefore you have to juggle all this when figuring out how much flash exposure compensation to dial in. A seemingly tough task that gets easier with experience.

在决定闪灯补偿的多少的时候需要综合考虑这些因素。这看起来有点难，但如果你积累了足够的经验则会发现其实还是比较容易的。

But here's a hint - **when your flash acts only as fill**, then the actual flash exposure compensation can vary without affecting the quality of the final image much.

需要提醒一点，如果你的闪灯是做补光用的，那么曝光补偿基本不会影响最终的图片质量。

An example:
Flash exposure compensation of say -2 EV will look slightly different than -3 EV, but in the end the actual photo won't be incorrectly exposed with either setting. If your flash was the main source of light, then a full stop incorrect exposure would be a lot and might very well mean the image is a flop in terms of exposure. But when the flash is just fill-flash, it is less crucial - although careful and subtle use of flash should always be the aim of course.

比如：

闪光补偿为-2 和闪光补偿为-3，用这连个值拍摄的照片很难看出区别，它们不会影响曝光的正确性。但如果你的闪灯是主光源，则相差一级的曝光补偿出来的结果将会迥然不同。闪灯在做补光用的时候，曝光补偿则不是那么重要，当然仔细而精细的使用闪灯永远是我们的目标。

Metering and setting fill-flash compensation ..

测光和补光时的曝光补偿

Let's look at how metering and choice of camera settings can affect the appearance of fill-flash.

接下来让我们看一下测光和相机参数是如何影响闪灯补光的结果的。

With the next two photos I want to illustrate a point - if you think your fill-flash looks too prominent, it might be because your settings for ambient exposure isn't ideal.

我用以下的两张照片来说明一点：如果照片中闪灯补光的痕迹太明显可能是由于你的参数的设置对环境光的曝光不理想造成的。

Both these images were taken (using the Canon 1D mk2N), with the flash exposure compensation set to -3EV .. yet they look very different. The difference comes in that my settings for the ambient exposure were different:

LH: 1/500th @ f2.8 (@ 100 ISO)
RH: 1/250th @ f2.8 (@ 100 ISO)
(These two images are straight out of camera and weren't adjusted at all - and the left-hand image will appear slightly under-exposed.)

这两张照片都用 Canon 1D mk2N 拍摄，闪灯补偿都设为-3EV，但是它们看起来却有很大的不同。这主要是由于它们对环境光的曝光参数不同造成的。

上面的照片：1/500th @ f2.8 (@ 100 ISO)

下面的照片：1/250th @ f2.8 (@ 100 ISO)

(这两张照片都是直接出片没做任何调整，上面的照片看起来有些轻微的欠曝)

There is a one stop difference in exposure for the available light. The flash exposure with the Canon - as far as I can see (although I might very well be wrong) - doesn't seem to take into account the exposure settings dialed in for ambient light, but instead measures just the flash exposure at the particular f-stop.

这两张照片对环境光的曝光差了一级。佳能闪灯的曝光—至少我感觉是这样，当然我也可能是错的—没有综合考虑环境光曝光的设置，只考虑了快门速度。

So it would appear that with the left-hand image (with the higher shutter speed, and hence darker ambient exposure), the flash would be more apparent. You can see this in that the eyes are better lit with the flash in the left-hand image.

所以上面的图片(更高的快门速度，因此对环境光的曝光更少)闪灯的痕迹更明显。通过观察两张照片中的眼睛你就很容易发现这一点，上面的图片的眼睛要更亮一些。

With Nikon's flash system however, you have the choice between TTL and TTL BL, (ie standard TTL and matrix TTL). With TTL BL, the camera and flash take into account the available light and will reduce the flash output accordingly. In my experience, more subtle fill-flash is possible with Nikon's flash system than with the current Canon flash system.

对尼康的闪灯系统来说,你可以选择 TTL 或者 TTL BL(即标准 TTL 或者矩阵 TTL)。对 TTL BL 来说，相机和闪灯会将环境光也考虑进来然后相应的减少闪灯的输出。就我的经验来说,尼康的闪灯系统相比佳能现在佳能的闪灯系统来说可以进行更为精细的补光。

The conclusion here is that ultimately it is best to know how your specific camera and flash reacts in various scenarios and various lighting conditions. There is only so much that can be learnt outside of actual experience and continual practice. You have to know your own camera.

最终结论就是你要了解你的相机和闪灯在不同的场景和光线条件下的反应。而了解的途径也只有一条那就是不停的实践。

Cumulative exposure compensation with Nikon cameras ..

尼康相机的累加曝光补偿

The Nikon bodies (that I have experience of), allow you to set overall exposure compensation even when you have your camera set to manual exposure mode. This allows you to bias the metering.

尼康的相机(我有这方面的经验)允许你在手动模式的时候也可以设置曝光补偿。这就意味这在手动模式时你也可以调整相机的测光。

With Nikon, the overall exposure compensation and flash exposure compensation is cumulative .. to an extent. For example, if you were to dial in +1.0 exp comp and -1.0 flash comp, it would cancel each other - but only for this scenario where the ambient light is low, and your flash is your main source of light.

尼康相机的机身的曝光补偿和闪灯的曝光补偿是累加的。比如，你将机身的曝光补偿设为+1.0 将闪灯的补偿设为-1.0 那么它们两者之间将互相抵消，但这种抵消只会在以下场景才会发生，即环境光很暗且你的闪灯是主光源。

Where the ambient light levels dominate, and flash is used as fill-flash only, then different algorithms come into play, and you have other factors such as max sync speed and available apertures affecting the scenario as well .. and hence the flash and exposure compensation might affect ambient light exposure differently then.

当环境光为主光源时，闪灯一般只做补光用，此时尼康采用了另外一种算法，此时一些其它的因素，比如最大同步速度、最大可用光圈等也会对这种场景产生影响。因此闪灯及其曝光补偿对环境光曝光的影响也会不同。

But with Canon, flash exposure compensation and general exposure compensation aren't linked, as they are with Nikon. So with Canon, you can only set flash exposure compensation when the camera is set to manual exposure mode.

但对佳能来说，闪灯的曝光补偿和机身的曝光补偿是没有关系的，因此佳能机在手动模式下只能设置闪灯的曝光补偿。

more examples using bounce flash ...

更多关于反射闪光的例子

How effective our bounce flash looks, depends largely on us being aware of the ambient light, and the direction of the ambient light ... and then adding flash to it. Either as a fill, or as a main source of light.

反射闪光的效果取决于是否事先考虑了可用光的亮度及其方向，然后再相应的使用闪灯。无论你是用闪灯来补光还是用来做主光源，都是如此。

And we can finesse it by specifically choosing the direction in which we bounce flash. We can add to the ambient light, or we can bounce from an opposite direction to lift the shadows a bit.

我们可以巧妙的选择闪灯反射的方向来取得好的效果。我们可以使闪灯的光的方向与现场光的方向一致来增强现场光，也可以使之与现场光的方向相反来提升阴影处的亮度。

Any way we decide on it, the image will look better if we put some thought into it, instead of shooting direct flash .. or just as bad, in a 45' bounce angle when it isn't appropriate.

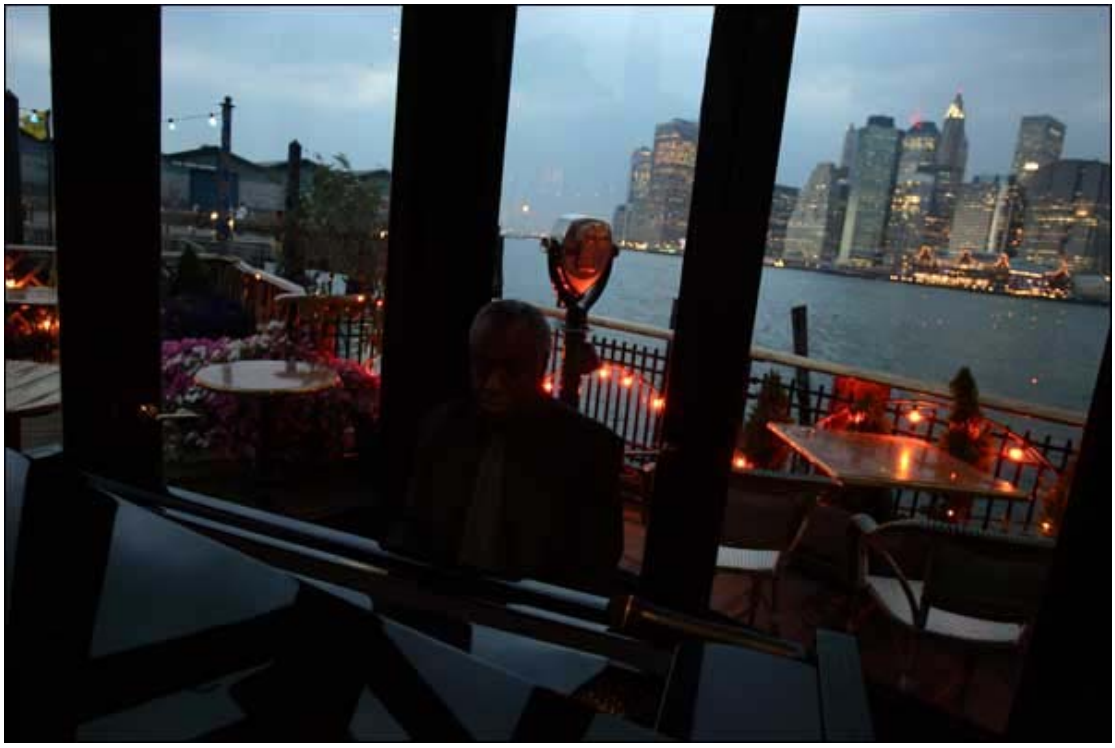
无论你使用哪种方式，通过仔细的考虑你都能取得比闪灯直射或者不管三七二十一都用 45 度反射好的效果。

So here are a few more examples to explain the thought process behind some of this ...

下面举一些例子来说明在不同的情况下应如何考虑。

This photo was taken in a restaurant in Brooklyn, overlooking the Manhattan Skyline. The interior of the restaurant was dimly lit - and even with the rainy early evening skies, the outside was brighter than inside. Using my on-camera flash, I had to balance the two areas.

这张照片是在布鲁克林的一个餐馆里拍摄的，从餐馆里可以俯瞰曼哈顿。餐馆内的光线很暗，即使当时已经傍晚，并且天空阴云密布，室外的亮度依然比室内亮很多。因此我不得不使用闪灯来平衡室内和室外的光线。



If you hold your mouse over the photo, you will see the test shot. It might give a better idea of the effect of the added flash.

上面的照片是我的试拍，看了它你就更能明白为什么要用闪灯。

I firstly metered for the outside, and double-checked with a test shot. My settings were 1/15th @ f4 @ 800 ISO, with an ultra-wide angle zoom lens. (Equipment: Canon 1D mk2N; 580EX speedlight; Canon 16-35mm f2.8)

我首先对着窗外测光然后试拍了一张。相机的设置为 1/15 秒 @ f4 @ 800 ISO，使用的是一个超广角变焦镜头(使用的设备为 Canon 1D mk2N; 580EX speedlight; Canon 16-35mm f2.8)

I then added flash by bouncing the flash off the ceiling behind and to the right of me. A test shot showed me I needed to add some flash exposure compensation. +0.7 EV looked about right.

接着我将闪灯打到我右后方的天花板上。我又试拍了一张结果显示我还需要闪灯曝光补偿。我将曝光补偿设为+0.7EV，曝光看起来基本正确。

Even though the shutter speed was low, I wasn't too concerned with camera shake, because the piano player would be too dark (without flash) for camera shake to be noticeable if I handled my camera carefully.

虽然快门的速度很慢，但我却不太用担心相机的抖动。因为这个弹钢琴的人所在的位置光线很暗(不用闪灯时)，所以如果我端稳相机的话相机的抖动很难被注意到。

This photograph was taken during the ceremony in a church where the light was enough to squeeze the photos at :
1/80th @ f2.8 @ 16oo ISO

上面这张照片是在婚礼上拍摄的，当时教堂的光线在以下参数时可以正确曝光：

1/80 秒 @ f2.8 @ 16oo ISO

But since the walls were light coloured, I shot some candid portraits of the bride with flash.

但是由于墙的颜色很浅，因此在抓拍新娘时我使用了闪灯。

If you look at the direction of the light on her face, you'll immediately see where I bounced the flash from - the wall to my above right.

如果你注意到了新娘脸部光线的方向你就能立即看出我将闪灯打到了哪个方向—我右上方的墙上。

specific settings:

具体参数如下：
Canon 1D mk2N
Canon 70-200mm f2.8 IS
Canon 580EX speedlight
1/160th @ f2.8 @ 800 iso
TTL flash: +1.3 exp comp

This is part of the portrait series I took of the bride and groom of their wedding in Aruba. The sun had already set, leaving the colours too cool. I had my daughter hold up a gold Lastolite reflector about 2 meters behind me, and bounced my flash into that. This gave a lovely warm colour to the flash, hopefully mimicking the setting sun of 5 minutes before. The shadow is more distinct, but still soft enough, and I think it looks natural in this scenario. I also made sure that the amount of flash would blend with the amount of ambient light left.

上面这张照片是我为一对夫妇在阿鲁巴岛婚礼上拍摄的一系列照片中的一张。当时太阳已经落了，因此颜色较冷。我让我的女儿在我身后 2 米远处举着一个金色的 Lastolite 反光板，然后我将闪灯打到反光板上。这将使照片呈现讨人喜欢的暖色调，并且我还希望这能模仿 5 分钟前太阳快要落下时的光线。当然这样会使阴影更加明显，但光线却仍能保持足够柔和，我想在这种场景下这看起来会比较自然。当然我还确保了闪灯的输出量能够很好的跟现场光混合。

Specific settings:

具体参数如下：

Canon 1D mk2N; Canon 24-70mm f2.8; Canon 580EX speedlight
1/100th @ f4 @ 640 iso; TTL flash: +0.3 exp comp

Earlier in the day, I used the colourful backdrop of Oranjestad's quaint architecture, while photographing the same couple.

在当天早些时候，我还以奥拉涅斯塔德的一些有意思建筑的彩墙为背景，为这对夫妇做了些拍摄。

The sun was bright and overhead, so I had to use flash to lift the shadows. I used direct flash, since there wasn't anywhere to bounce the flash off. I also needed to work fast, so the direct flash was a compromise because I had to make the images work.

当时太阳很亮且在我们的正上方，因此我不得不用闪灯来提升阴影处的亮度。但是没有任何一个地方我可以用来反射闪灯，所以我将闪灯直接打向了这对夫妇。我必须提高快门速度，这样可以折中直射闪灯的光，出来满意的照片。

specific settings:

具体参数如下：
Canon 1D mk2N
Canon 70-200mm f2.8 IS
Canon 580EX speedlight
1/1000th @ f4 @ 100 iso
TTL flash: -3.0 exp comp

The execution of this next photo, is similar to the previous photograph of the bride in the church. I had to decide exactly where I want to bounce my flash off. This would then dictate the direction the light would appear to come from.

下面这张照片跟前面的新娘在教堂中的照片的处理方式类似。我首先要决定从哪个方向反射闪灯，这将决定着最终照片中光线的方向。

The bridesmaids were standing in the open doorway watching her - so with a bit of luck I was able to bounce my flash so that it lit the bridesmaids in the background. I bounced my flash over my left shoulder, hitting part of the ceiling and bedroom wall behind me.

女傧相们正站在一扇敞开的门里注视着新娘，所以有点幸运我用反射闪光的时候也可以打亮她们。我将闪灯打向了我的左肩，使其一部份打到天花板上一部分打到我身后卧室的墙上。

Bouncing the flash like this made the light appear directional on the bride, and give some modeling. (Simply bouncing my flash upright would've given flat lighting, and caused shadows under the eyes.)

这样可以使新娘身上的光线更具有方向性从而更有立体感(将闪灯简单的打向正上方则会产生比较平的光并且会在新娘眼的下方造成阴影)

Specific settings:

具体参数为：

Canon 1D mk2N; Canon 24-70mm f2.8; Canon 580EX speedlight
1/80th @ f4 @ 640 iso; TTL flash: +1.0 exp comp

From the flash exposure compensation alone, it should be obvious by now that the flash was my main source of light here. Even then, my settings were chosen so that some ambient light would register.

从我闪灯补偿的值就可以看出来，此时闪灯是作为我的主光源，尽管我在选择参数的时候考虑到了保留环境光。

using just the ambient light

只用环境光

At this point I just want to show that I'm not actually addicted to using a flashgun, (all evidence to the contrary), and actually do know when to switch it off ...

在这里我要说明一下，我并不是沉迷于使用闪灯(尽管从前面的例子里看来我并非如此)，实际上我非常清楚什么时候应该将闪灯关掉。

... especially when the officiant states that no flash will be allowed during the ceremony. An understandable sentiment.

特别是当牧师特别指出仪式上不能用闪灯的时候，当然我们也应该理解人家的主张。

Also, when the available light is perfect, there is no need to try and enhance it or control it with light from a strobe. And then there are times when using flash would destroy great ambient light.

另外，当现场光线非常好的时候，也没必要尝试着用闪灯来加强什么或者控制什么，如果非要用闪灯的话有时候还会破坏现场光，造成不好的后果。

And as with the other pages, the idea is that we be very aware of the quality of the light and direction of the light.

接下来的几页，我要强调的观点是拍摄时要时刻注意光线的质量和方向。

With this wedding, the rabbi informed me a few minutes before the ceremony, that he won't allow flash. That is when those f1.4 optics come in really handy!

上面这张照片，在婚礼中教士事先告诉过我不允许用闪灯。这时候 f1.4 光圈的镜头有了用武之地。

Specific settings:

具体参数：

Nikon D2H; Nikon 85mm f1.4
1/100th @ f1.4 @ 500 iso / manual;
matrix metering / ambient light only (只用现场光)

Here I asked the bride and groom to dance along the path, away from me towards the grass. I took a series of photographs, and in this one image, the dress lifted perfectly. In this scenario I didn't bother using flash since I knew they would be some distance from me. Also, this image is more about the movement and gestures, rather than details in faces.

拍摄上面这张照片时，我让新娘和新郎沿着离我较远的一条靠近草坪的小路跳舞。我拍摄了一系列的照片，而这张新娘衣服飘动的姿态很完美。在这种情况下我根本不会考虑用闪灯，因为他们离我比较远。并且这张照片着重表现的是他们运动的姿态而不是要表现他们脸部的细节。

Specific settings:

具体参数：

Nikon D2x; Nikon 70-200mm f2.8 AF-S VR
1/500th @ f4 @ 400 iso / manual;
matrix metering / ambient light only(只用现场光)

This photograph was taken in the hotel lobby, using only the tungsten light mounted inside a strip, as part of a pillar.

这张照片是在一个宾馆的大厅里拍摄的，只用了柱子上的钨灯作为光源。

I asked the bride to lean in towards the pillar of light, and then had the groom snuggle in closer.

我让新娘向柱子上的光源倾斜，然后让新郎紧紧的依偎着新娘。

Flash would've been completely superfluous here and destroyed the mood.

这时候使用闪灯是完全多余的，将会破坏这种气氛。

specific settings:

具体参数：
Canon 1D mk2N
Canon 24-70mm f2.8

1/125th @ f5 @ 640 iso
manual; matrix metering
ambient light only (只用现场光)

I kept the WB purposely very warm here, since it adds to the mood - instead of aiming for a 'correct' WB.

在这里我故意让白平衡保留这种暖色调，因为这比“正确”的白平衡更能增强气氛。

I took a series of photographs here using flash - on-camera and off-camera strobes ... but when the videographer moved behind the bride and groom, I switched it all off, and used the video light as back-light.

拍摄这组照片的时候我使用了机顶闪灯和离机闪灯，但当摄像师移动到新娘和新郎的身后时，我把它们都关了，只用摄像灯作为背光。

specific settings:

具体参数：
Canon 1D mk2
Canon 70-200mm f2.8 IS
1/125th @ f2.8 @ 800 iso
manual; eval metering(评价测光)
ambient light only (只用现场光)

Once again I kept the WB purposely very warm. It just looks so much better than the 'correct' WB where the veil is white again.

当然我又一次保留了白平衡的暖色调。这比正确白平衡时白色的婚纱看起来更好。

Here too I used the videographer's light - and it helped a lot in that it created a spot-light effect on the couple's faces. The rest of the light was just the available incandescent lighting of the room.

上面的这张照片我又使用了摄像师的灯光，这有助于在这对夫妇的脸上造成聚光灯的效果。其余的光线则来自于房间内的白炽灯。

specific settings:

具体参数：
Canon 1Dmk2
Canon 50mm f1.4
1/80th @ f1.4 @ 1250 iso
manual; eval metering (评价测光)
ambient light only (只用环境光)

The DJ's lighting set-up was a good back-drop to shoot against, whether using flash or shooting without flash. I like this image for how the flare enhances the mood.

DJ 的灯光设备是比较好的背景光，无论是否使用闪灯都是如此。我非常喜欢上面这张照片，眩光增加了气氛。

Specific settings:

具体参数：

Canon 1D mk2N; Canon 24-70mm f2.8
1/60th @ f2.8 @ 1600 iso / manual;
matrix metering(矩阵测光) / ambient light only(只用环境光)

flash brackets

闪灯支架

Rotating flash brackets are cumbersome attachments between the camera and flash, which enables the flash to always be over the camera.

旋转闪灯支架是将相机和闪灯连接在一起的一个比较笨重的附件，但它能保证闪灯总在相机的上方。

This eliminates the hideous sideways shadow when you shoot vertically with flash on-camera.

这有助于消除竖拍时机顶闪灯留下的阴影。

The other advantage is that when you bounce flash, the source of your light remains the same between vertical and horizontal photos taken from the same position. This consistency in lighting is very useful to me.

另一个好处是当使用反射闪光时可以保证横拍和竖拍光线的一致性。这种光线的一致性对我来说非常有用。

There are various makes of flash brackets. With some you have to let go of the lens to flip the flash over with one hand. With other more elegant designs, you rotate the actual camera.

闪灯支架有很多种。有的你必须用持镜头的手来旋转闪灯，而有的设计则更好一些，你只需用旋转相机就行了。

I prefer the rotating flash brackets where the camera rotates with a deft flick of the hand holding the camera. The make I use is Custom Brackets, although I did modify it with an angle-grinder to make it more compact and have less bits sticking out.

我比较喜欢的闪灯支架是相机旋转后只须用拿相机的手轻敲一下就可以的那种。我使用的支架为Custom Brackets，但是我用锉刀进行了改造，让它更紧凑伸出的部分更小。

There is so much variation between the different makes, that it is worth checking them out for yourself instead of taking recommendations from the photography forums.

各个厂家制造的支架差别很大，所以与其在摄影论坛上提问，不如去亲自试一下。

One of the other highly touted brackets has such a clumsy design, making it near impossible for me to use the zoom control on my lenses.

论坛上有一个被捧的很厉害的支架，设计却并不合理，我在使用它时几乎不能控制我的镜头的变焦。

As I mentioned, flash brackets are bulky and heavy, and when I can, I work without one. But they really do help with the consistency of bouncing flash, and in avoiding side-shadows.

像我提到的那样，闪灯支架又大又重，所以我尽量不用它。但是它们在保证反射闪光时的光线一致性和避免侧影方面确实很有用。

Of course, I don't use a flash bracket in daylight, since I then nearly always use flash as fill, and the direction of the flash is of less importance than when using bounce flash indoors. Besides, there is rarely anything to bounce flash off when working outside, and the loss in flash output because of bouncing would most likely render the flash light imperceptible.

当然，在日光下拍摄时我不会使用闪灯支架，因为这是我多数用闪灯来补光，此时光线的方向就不像在室内反射闪光那么重要。此外，在室外拍摄时多数情况下找不到用来反射闪灯的东西，并且反射闪光会造成闪灯光的损失，在室外时这将导致闪灯的光几乎不起作用。

flash techniques - FAQ

闪灯技术常见问题

bouncing flash behind me - what am I bouncing off?

将闪灯打向我的身后，我是靠什么反光的？

I've had a fair number of people writing in to tell me that they don't quite understand what I am bouncing the flash off when I bounce behind me into an open room.

有许多人写信问我，他们对我将闪灯打向我身后打开的房间时是靠什么反光的不太明白。

What is happening there, is that I am usually at a wide f-stop and a fairly high iso - something like f2.8 and 800 iso ... so that means ANY light that bounces back from various objects in the room, will register in the image. The light from the strobe bounces back from furniture, other objects, part of the ceiling, some of the walls to the side. You're in effect just flooding the entire place with light from your strobe ... and

at f2.8 ... it will register. It obviously depends on the size of the room, etc. But just try it. :-)

我一般使用光圈全开和一个比较高的 iso，比如光圈 2.8 和 800iso，这就意味着从身后房间中任何物体上反射回来的光都会在照片上保留下来。从家具上，其它物体上，部分天花板上，旁边的墙上反射回来的光线，在 2.8 的光圈下，都会被记录下来。当然这还跟房间的大小等有光线，但不管怎么要你尽管先试一试再说:-)

Especially when you are using flash to augment the available light - you simply don't need a lot of flash to have some effect.

特别是你用闪灯的光来增强现场光的时候，你并不需用很多闪灯的光。

which metering mode do you use?

Matrix / Evaluative, or Center-weighted, or Spot-metering?

你使用哪种测光模式，矩阵/评价，中央重点或者点测？

You'll find different arguments on the various web forums as to which works better. Lots of advice there. But now I'm going to add something that might confuse you ...

你在很多论坛上都会看到关于这个问题的争论，并且还能看到很多的建议。但是我在这里需要补充一下，这可能会让你糊涂…

... it doesn't really matter in the end which metering mode you use.

… 最终你使用哪种测光模式其实都不太重要。

We're shooting in manual exposure mode now, remember? So no matter which route we take to get to the exact shutter speed / aperture combo that we're using ... we're getting the exact same exposure regardless of which metering mode was used.

记得不，我们使用的是手动曝光模式。所以无论你使用什么模式确定的快门/光圈组合最终的曝光结果都是相同的。

As I said on the page on metering techniques ..

像我在前面测光技术里说的那样

For me, exposure metering has become an iterative process of:
- checking my **camera's meter**,
- checking the **histogram**

- and **blinking highlights** display,
- checking the **image on the LCD**, (although this isn't an accurate assessment of exposure),
- **experience.**

对我来说，测光是以下几步的循环：

- 检查相机的测光表
- 检查直方图
- 检查有无高光报警
- 在 LCD 上检查拍摄的照片(虽然这并不是检查曝光正确性的正确方法)
- 经验

There is no fixed recipe in approaching metering in all kinds of situations. It's a mix-n-match of different techniques - all used to make sure I get optimum exposure for my images.

没有哪一种固定的测光方法可以适用于各种情况。需要将各种不同的技术综合起来才能确保照片曝光的正确性。

With that iterative method, it doesn't really matter which metering mode was used - I end up at the same place - the same aperture / shutter speed / ISO combination.

通过循环做以上几步，无论我使用哪种测光模式，我都会取得相同的光圈/快门速度/ISO 组合。

So which metering mode do I actually use ? I mostly keep the camera set to matrix /evaluative metering, but I occasionally switch to spot metering. When I do use spot metering, I am specific about the tonality of the area which I am metering of. That is a very important consideration when you use spot-metering.

那么我到底使用哪种测光模式？我大多数情况下将相机设为矩阵/评价测光，但有时候我也用点测。当我用点测的时候我一般是要着重表现点测光处的色调。当你用点测时，这也是一个重要的考虑因素。

flash battery packs

闪灯电池盒

With my Nikons I use the SD-8A battery pack and simply fold the flap of the battery pack's pouch, over my camera strap. I use NiMH rechargables with these.

对尼康来说，我使用的是 SD-8A 电池盒，并将其固定到相机带上。我使用的是 NiMH 充电电池。

With my Canons I use the CP-E3 battery pack, and I clip this onto the camera strap as well. Alternately, with the flash bracket that I use, I can screw the battery pack onto the vertical stem of the flash bracket. I also use NiMH rechargables with these battery packs.

至于佳能，我使用的是 CP-E3 电池盒，我也将它系到相机带上。另外如果我用闪灯支架的话，我可以将它固定到闪灯支架上。我也使用 NiMH 充电电池。

If I want more juice than that, or need to fire the strobe faster than those battery packs can deliver, I use the Quantum 2x2 Turbo battery pack clipped onto my belt.

如果我想回电更快的话，我会使用 Quantum 2x2 Turbo 电池。

The advantage of the Nikon SD-8A and Canon CP-E3 over the Turbo, is that by clipping the much lighter battery pack to the camera strap, it leaves the camera bodies independent of me. That makes the cameras easier to set down, or switch them to the other shoulder.

Nikon SD-8A 和 Canon CP-E3 相对于 Turbo 的好处是重量比较轻。

When on-camera flash isn't (nearly) enough ...

什么时候机顶闪灯不够用

Sometimes you need to pump out more power than a single on-camera flash can produce - to get light as even as this. Still with no noticeable flash shadow. This photo was lit with two Dynalite heads and two white shoot-through umbrellas high up on stands, and on-camera flash (just to add a touch more power.) So there's nothing spectacular here, just a matter of providing enough light and making it as even as possible.

有时候只有机顶闪灯是不够的，你需要更多的光来取得下面这张图片中均匀的光线效果，并且还不能有明显的闪灯痕迹。这张照片用了两个 Dynalite 灯和两把伞，并且使用了机顶闪灯。所以也没什么特别的，只是尽量的提供足够的光线并尽量的保持光线的均匀。

Using a diffuser cup, and the angle that you have your speedlight tilted and rotated at, needs to be an active decision based on the specific scenario you're shooting under. Putting a diffuser cup on, and tilting your flash head to 45' should never be a mindless default. Put some thought into it.

是否使用柔光罩，以及山灯打向的角度需要根据实际情况来决定。不能不假思索的一味使用柔光罩和 45 度角反射，你需要根据实际情况仔细的考虑。